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10/786,843	02/25/2004	Jose German Rivera	200312292-1	2936

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EXAMINER	
WEI, ZHENG	
ART UNIT	**PAPER NUMBER**
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07/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,843	RIVERA ET AL.	
	Examiner	Art Unit	
	Zheng Wei	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-11,14-21,23-31,34-41 and 44-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-11,14-21,23-31,34-41 and 44-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. This office action is in response to the amendment filed on 05/07/2007.

2. Claims 2-3, 12-13, 22-23, 32-33 and 42-43 have been canceled.

3. Claims 1, 11, 21,32, and 41 have been amended.

4. Claims 44-49 have been added.

5. The 35 U.S.C. 112 second paragraph rejection of claim 2 is withdrawn in view of the Applicant's amendment to cancel the claim

6. The 35 U.S.C. 101 rejection to claim 11-20 is withdrawn in view of the Applicant's amended claims and cancellation of claims 12-13.

7. Claims 1, 4-11, 14-21, 24-31 and 44-49 remain pending and have been examined.

Response to Arguments

8. Applicant's arguments filed on 05/07/2007 in particular on pages 15-18, have been fully considered but they are not persuasive. For example:

   - At page 15, Applicant argues that the term "minimally causes the processor" is not indefinite. Because it has been disclosed at specification paragraph [0036]. The Examiner thanks applicant for pointing out. However, it is not a standard definition for ascertaining the requisite degree as required M.P.E.P.

- At page 16 section Claim1, the Applicant contends that Williams fails to discloses or suggest either of recognizing an assertion request type corresponding to the assertion request or determining a component that sourced the assertion request as claimed in amended claim 1. Because Williams does not recognize an assertion request type and the Switch objects of Williams are not assertion requests as claimed in amended claims. However, the Examiner respectfully disagrees that. As Williams disclosed at page 9, section "Displaying messages with the Trace and Debug Classes", clearly points out that "Assert Generates an assertion violation message if a supplied expression is false" (emphasis added). For making the decision about output, the switch object has to be able to recognize an assertion request type/Boolean type (true/false or enabled/disabled). Moreover, Williams also discloses at page 13, section "Using the BooleanSwitch Class", "The BooleanSwitch.Enable property returns ether true or false, which you can use to control message out put with WriteIf or WriteLineIf methods.". Further, the assertion type as Applicant cited in the claims can be reasonable interpreted as Boolean type of value true/false or enabled/disabled. Therefore, Williams does disclose limitation of recognizing a type of an assertion of an assertion request. At page 16, last paragraph, the Applicant also contends that Williams does not determine a component that sourced the assertion request. However, as Williams discloses at page 13 and page 14, table 9-1, the BooleanSwitch class can be used to control tracing and

debugging output, including all error message as listed in table 9-1. Therefore, it has to be able to determine the sourced information before control the output.

- At page 17, section about claims 11, 41, 4-5, 7-10, 14-15 and 17-20. The rejection to above claims is maintained for the same reason as address above about all the limitation in claim 1.
- At pages 17-18, section about 103 rejection, the Application's agreement about claims 6, 16, 26, 36, 21-25, 27-35 and 37-40 are moot and not persuasive in view of the Examiner's response about claim 1 above.

Claim Objections

9. Claim 44 is objected to because of the following informalities: Claim 44 dependents on a canceled claim 2. For the purpose of compact prosecution, the Examiner treats it as a dependent claim of claim 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 21-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 21-30: The term "**minimally causes the processor**" in claims 21-30 is a relative term which renders the claim indefinite. The term "minimally causes the processor" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. For the purpose of compact prosecution, the Examiner treats the term as just –**causes the processor**--.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1, 4, 5, 7-11, 14, 15, 17-20 and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Wiliams (Mickey Williams, Microsoft® Visual C#™ .NET)

Claim 1:

Wiliams discloses a method for monitoring (debugging and tracing) computer software comprising:

- receiving an assertion from an executing process (see for example, p.11, line 3, "When a DefaultTraceListerner object detects that the Assert method has been called from a server process"), wherein receiving an assertion comprises:
- receiving an assertion request (see for example, p.11, line 3, "When a DefaultTraceListerner object detects that the Assert method has been called from a server process");
- performing at least one of:
- recognizing a type (enabled or disabled) for the assertion request (see for example, p.13, section "Using the BooleanSwitch Class", lines 20-21, "The BooleanSwitch class is used to created simple Switch objects that can be either enable or disabled", also see p.22-24, example code)
- determining a component that sourced the assertion request (see for example, p.13, section "Using the BooleanSwitch Class", lines 20-24, example of a BooleanSwitch object with a display name of ***mySwitch***:

  BooleanSwitch ***theSwitch***

  = *new BooleanSwitch ("mySwitch", "Application tracing");*

  TheSwitch.Enable = *true*); and
- accepting the assertion request when the determined component has assertion requests enabled (see for example, p.13, lines 25-27, "This code also enables the ***mySwitch*** object programmatically, The switch can be used to control tracing or debugging output code such as this:

Trace.WirteLineIf (theSwitch.Enabled, "An overdraft occurred")).

- recording the assertion when the assertion is violated (see for example, p.10-11, figure 9-3 "Dialog box generated by trace and debug output with the Assert method" and related text, also see p.10, section "Asserting That Expressions Are True", lines 15-16, The Assert method is used to display an error message when a condition that's expected to evaluates as true evaluates as false."); and
- allowing the executing process to continue execution (see for example, p.10-11, figure 9-3 "Dialog box generated by trace and debug output with the Assert method" and button labeled as "Ignore").

Claim 44:

Wiliams also discloses the method of Claim 2[1] wherein the assertion request type is one of a group of defined assertion macro names (property) (see for example, p.13, section "Using the BooleanSwitch Class", lines 20-21, "The BooleanSwitch class is used to created simple Switch objects that can be either enable or disabled", also see p.22-24, example code)

Claim 4:

Wiliams further discloses the method of claim 1 wherein recording the assertion comprises recording a datum that includes at least one of: type of assertion,

sequence number of the assertion, time at which the assertion occurred, identification of processor that produced the assertion, identification of process that produced the assertion, identification of the thread that produced the assertion, text of the assertion, stack trace, source line containing the assertion, and file name of the source containing the code that generated the assertion (see for example, p.10-11, figure 9-3 "Dialog box generated by trace and debug output with the Assert method" and related text, also see p.10, lines 1-2, "As you can see, this dialog box includes call stack information when available. Where debug symbols are available, the stack trace includes file name and line number information.")

Claim 5:

Wiliams also discloses the method of claim 1 wherein recording the assertion comprises writing information regarding the assertion violation to a computer readable medium (see for example, p.9, lines 13-15, "The .NET Framework includes classes to control trace and debug output message and to write output message to files, streams, and event log.").

Claim 7:

Wiliams further discloses the method of claim 1 further comprising:

- accepting a command from at least one of a control console and a network connection (see for example.p.203, Figure 9-1. "The build property page for a project, on which new symbols are defined", "TraceDemo Property Pages", "Configuration Properties", also see p.13, example configuration file: *SwitchText.exe.config*); and
- updating an enable condition for an assertion class according to the command (see for example, p.13, line 41-p.14, line 2, "Switches are controlled by adding XML element nodes inside the switches element, Multiple switch objects can be configured through a configuration file by adding additional elements to the switches node." , "BooleanSwitch objects are disabled by default and are enabled if they're assigned a nonzero value in a configuration file.")

Claim 8:

Wiliams further discloses the method of claim 1 further comprising generating an error report according to the recorded assertion (see for example, p.11, lines 7-17. "The Assert method has three versions", "The most basic version simply accepts an expression that triggers an assertion failure message", "The second version of Assert accepts a second parameter that serves as a short error message describing the assertion violation", "The third version of Assert accepts a third parameter that includes detailed information about the assertion violation")

Claim 9:

Wiliams also disclose the method of claim 8 further comprising dispatching the error report to a real-time assertion monitor (Visual Studio output window) (see for example, p.11, lines 5-6, "Instead, it writes the output message to the Visual Studio Output window and any other debuggers currently accepting output from the Microsoft Win32 OutputDebugString function.").

Claim 10:

Wiliams further discloses the method of claim 8 wherein generating an error report comprises: retrieving an assertion violation parameter including at least one of: type of assertion, sequence number of the assertion, time at which the assertion occurred, identification of processor that produced the assertion, identification of process that produced the assertion, identification of the thread that produced the assertion, text of the assertion, stack trace, source line containing the assertion, and file name of the source containing the code that generated the assertion; and generating a report file comprising page description statements according to the assertion parameter (see for example, p.10-11, figure 9-3 "Dialog box generated by trace and debug output with the Assert method" and related text, also see p.10, lines 1-2, "As you can see, this dialog box includes call stack information when available. Where debug symbols are available, the stack trace includes file name and line number information.")

Claims 11, 14, 15, 17-20 and 45:

Claims 11-15, 17-20 and 45 are apparatus version of the claimed method addressed in claims 1-5, 7-10 and 44 above for monitoring computer software, wherein such an apparatus/computer system is deemed to be inherent to produce, such as Figure 9-3 dialog box and word above. Therefore, these claims are also anticipated by Wiliams.

Claim 41:

Wiliams discloses an apparatus (Microsoft® Visual Studio C#™.NET) for monitoring computer software comprising:

- means for detecting an assertion from an executing process(see for example, p.11, line 3, "When a DefaultTraceListerner object detects that the Assert method has been called from a server process");
- means for recording information pertaining to the assertion when it is violated (see for example, p.10-11, figure 9-3 "Dialog box generated by trace and debug output with the Assert method" and related text, also see p.10, section "Asserting That Expressions Are True", lines 15-16, The Assert method is used to display an error message when a condition that's expected to evaluates as true evaluates as false."); and

- means for allowing the executing process to continue execution (see for example, p.10-11, figure 9-3 "Dialog box generated by trace and debug output with the Assert method" and button labeled as "Ignore").

Claim 48:

Wiliams also discloses the apparatus for monitoring computer software of Claim 41 wherein the assertion request type is one of a group of defined assertion macro names (property) (see for example, p.13, section "Using the BooleanSwitch Class", lines 20-21, "The BooleanSwitch class is used to created simple Switch objects that can be either enable or disabled", also see p.22-24, example code).

Claim 49:

Wiliams discloses a method for monitoring computer software comprising:

- Receiving an assertion from an executing process, wherein the executing process is integral to an operating system (see for example, p.11, line 3, "When a DefaultTraceListerner object detects that the Assert method has been called from a server process")
- Recording the assertion when the assertion is violated (see for example, p.10-11, figure 9-3 "Dialog box generated by trace and debug output with the Assert method" and related text, also see p.10, section "Asserting That Expressions Are True", lines 15-16, The Assert method is used to display an

error message when a condition that's expected to evaluates as true evaluates as false."); and

- Allowing the executing process to continue execution (see for example, p.10-11, figure 9-3 "Dialog box generated by trace and debug output with the Assert method" and button labeled as "Ignore").

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 6, 16, 26 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiliams (Mickey Williams, Microsoft® Visual C#™ .NET) in view of Cantrill (Bryan M, Cantrill, US 7,146,473)

Claim 6:

Wiliams discloses the method of claim 1 wherein recording the assertion comprises writing information regarding the assertion violation to output device, but does not explicitly disclose the output is a circular buffer. However, Cantrill in the same analogous art of a mechanism for ring buffering (circular buffer) in an

arbitrary-action tracing framework (see for example, col.7, lines 15-17, "Embodiments of the invention provide a means for implementing a ring buffer scheme in arbitrary-action tracing frameworks which have variable length records."). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use circular buffer to store the output message. One would have been motivated to do so to keep the most recent recorded message in the fix sized buffer as suggested by Cantrill (col.1, lines 28-30, "one may which only want to keep the most recent data. To allow for this, tracing frameworks have historically implemented ring buffer.")

Claims 16, 26 and 36:

Claims 16, 26 and 36 are different product versions of method claim 6. It is well known in the computer that these products can be used to practice or perform the method discussed in claim 6 above. Therefore these claims are also unpatentable over Wiliams in view the teachings of Cantrill.

16. Claims 21, 24, 25, 27-35, 37-40, 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiliams (Mickey Williams, Microsoft® Visual C#™ .NET)

Claims 21, 24, 25, 27-30 and 46:

Claims 21-25, 27-30 and 46 claim a computer software monitoring system comprising: memory capable of storing instructions; processor capable of

executing instructions stored in the memory; and software monitor instruction sequence that, when executed by the processor, minimally causes the processor to: receive an assertion from an executing process, record the assertion, and allow the executing process to continue execution. This is a product version of method claims discussed in claims 1-5 and 7-10 above respectively. It is well known in the computer art that the method can be practiced by the computer system to perform the same functionality. Therefore, these claims are also unpatentable over Wiliams.

Claims 31, 34, 35, 37-40 and 47:

Claims 31-35, 37-40 and 47claim a computer-readable medium having computer-executable instructions for performing a method for monitoring computer software. This is another product version of method claims discussed in claims 1-5 and 7-10 above respectively. It is well known in the computer art that the method can be stored and practiced in the computer-readable medium. Therefore, these claims are also unpatentable over Wiliams.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

18. Applicant's arguments with respect to claims rejection have been considered but are moot in view of the new grounds of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059 and Fax number is (571) 270-02059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZW

TUAN DAM
SUPERVISORY PATENT EXAMINER